



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/810,714 | 03/19/2001 | Brian Stout | 82,363 | 7355 |

7590

04/27/2004

COASTAL SYSTEMS STATION, DAHLGREN DIVISION
NAVAL SURFACE WARFARE CENTER
6703 W HWY 98 CODE CP2L
PANAMA CITY, FL 32407-7001

| |
|----------|
| EXAMINER |
|----------|

MANOHARAN, VIRGINIA

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1764

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/810,714

Applicant(s)

STOUT ET AL.

Examiner

Virginia Manoharan

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicants' cooperations are requested in correcting any errors of which applicants may become aware in the specification.

The drawings are objected to for the following reasons:

1). failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "30' " as recited at page 5, e.g., line 14 of the specification;

2). failing to comply with 37 CFR 1.84(p)(4) because reference character "30" has been used to designate both "fluid 30", in page 5, line 11, and "water 30" in page 5 line 13; and

3). failing to comply with 37 CFR 1.84(p)(4) because reference characters "43" in page 5 line 11 and "30 a" in page 5, line 15 have both been used to designate "open-ended bottom".

A proposed drawing corrections or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The above objections to the drawings will not be held in abeyance.

[Applicants should further check the application such that no different numbers refer to the same part, and vice versa, i.e., no different parts should be referred to by the same number].

Art Unit: 1764

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) The preamble of claim 1 recites "a distillation apparatus" however, no evaporator, boiler or still has been recited in the body of the claims. A distillation apparatus, by definition, would comprised in combination of an evaporator and a condenser. See also the method claim 9.

b) Claim 1 recites the limitation "said vapor" in line 5. There is insufficient antecedent basis for this limitation in the claim.

C) In claim 7, line 1, -the – should be added before "condenser" for clarity, i.e., to make clear that it is the same condenser initially recited in the claims, e.g., in claim 1.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 1764

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over anyone of Sommers Jr. (3,212,999), Dableh (6,375,805) or Meckler (3,393,130).

Anyone of the above references is deemed to anticipates or renders obvious the claimed "distillation apparatus comprising:

a container holding water; a heating section on said container and extending into said water; a condenser section on said container and adjacent to said heating section to condense said vapor into distilled water; and a thermoelectric section having a Peltier effect device interposed between said heating section and said condenser section, said Peltier effect device having one side adjacent and in contact with said condenser section to transfer heat therefrom and an other side adjacent to and in contact with said heating section to transfer heat thereto to boil said water into said vapor and feed said vapor through said condenser to condense it into said distilled liquid" as broadly claimed in claim 1; and the method thereof as broadly claimed in claim 9.

See the claims at cols. 10-12 of Sommers. Jr. I; at col. 3, lines 33-45, 47 and col.5, lines 22-43 of Dableh; and the claims at col. 12-18 of the Meckler's reference.

Art Unit: 1764

Claims 2-8 and 10-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Shelton discloses a desalination apparatus which uses a Peltier device.
- b) Trusch discloses a thermoelectric integrated membrane evaporation system.
- c) Park et al discloses a cover integrating the thermoelectric module in a cooling and heating apparatus.
- d) Laliberte' discloses a modular thermoelectric heating/cooling unit installed through an opening in wall separating first and second temperature zones.
- e) Mitani et al discloses a distillation apparatus with a heat pump.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is (571) 272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Application/Control Number: 09/810,714

Page 6

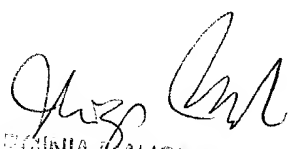
Art Unit: 1764

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monoharan/tgd

April 19, 2004


VIRGINIA MANOHARAN
PRIMARY EXAMINER
ART UNIT 125 *Man*